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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,557	10/12/2005	Takashi Wakasugi	50233-105	7475
20277	7590	09/29/2006		
MCDERMOTT WILL & EMERY LLP 600 13TH STREET, N.W. WASHINGTON, DC 20005-3096			EXAMINER PARSA, JAFAR F	
			ART UNIT	PAPER NUMBER
			1621	

DATE MAILED: 09/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/526,557	Applicant(s) WAKASUGI ET AL.	
	Examiner Jafar Parsa	Art Unit 1621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 October 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/4/2005 & 12/10/2005</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 112

Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 contains multiple periods. It is not clear where the claim ends.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Mais et al (DE 4028269).

Mais teaches a process for the preparation of dichlorobenzene comprises the chlorination of benzene or chlorobenzene in the presence of Friedel-Crafts catalysts and N-[(perfluoroalkyl)carbonyl]phenothiazines; dichlorobenzene thus prepared contains 1,4-dichlorobenzene as major fraction. A reactor was charged with benzene (100 parts by wt.), FeCl₃ or AlCl₃ (0.050 parts by wt.), N-(trifluoroacetyl)phenothiazine (0.091 parts by wt.), heated to 60⁰ C and chlorine (127 parts by wt.) was passed through the mixture in 5 hour. The product contained benzene (0.12% by gas chromatography.), chlorobenzene (42.90%), 1,2-dichlorobenzene (9.83% 1,3-

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dichlorobenzene (0.08%), 1,4-dichlorobenzene (46.98%), and trichlorobenzenes (0.09%). The same process using N-(trichloroacetyl)phenothiazine gave a mixture containing 40.46% chlorobenzene and 40.08% 1,4-dichlorobenzene. See abstract, page 3, lines 1-20 and Examples 1-7.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Mizusawa et al (WO 9743041).

Mizusawa teaches a process for the preparation of dichlorobenzene comprising Ph 10H-phenothiazine-10-carboxylates or their (optionally halogenated or alkyl-, alkoxy-, nitro- or cyano-substituted) chlorinated derivatives. And Lewis acids, such as FeCl₃ or AlCl₃ are useful as regioselective nuclear chlorination catalysts for aromatic hydrocarbons. The catalysts are advantageous in that the regioselectivity is not lowered even when the nuclear chlorination is conducted at a reaction temperature exceeding 45⁰ C and that the regioselectivity is enhanced with an increasing degree of chlorination. Thus, chlorination of chlorobenzene (I) 246 in the presence of FeCl₃ 0.47 and Ph 10H-phenothiazine-10-carboxylate 4.7 g at 50⁰C in the dark for 7 hour gave a product mixture containing I 44.92, o-dichlorobenzene 7.34, m-dichlorobenzene 0.05, p-dichlorobenzene (II) 47.66 and trichlorobenzene 0.04% at II selectivity 87%. See abstract and Examples 1-16.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jafar Parsa whose telephone number is (571)272-0643. The examiner can normally be reached on 8 a.m.-4:30 p.m. (M-F).

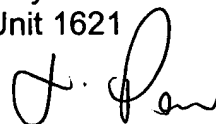
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thurman Page can be reached on 571-272-0602. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

JP
September 14, 2006

Jafar Parsa
Primary Examiner
Art Unit 1621



J. PARSA
PRIMARY EXAMINER